



# POLYSLICK® 501 / 502

Anti-Static/Conductive Ultra-High Molecular Weight PolyEthylene/Anti-Static/Conductive UHMW PE



\*\* POLYSLICK® is the registered trademark of

## POLYMER INDUSTRIES

### PRODUCT CAPABILITIES:

- Rod : 1/4" - 10"
- Sheet : 1/16" - 6"

### ADVANTAGES:

- High Abrasion Resistance
- High Impact Resistance
- Low Coefficient of Friction
- Chemical Resistant
- Lightweight
- Can Be Machined To A High Degree Of Precision
- Less Expensive Than Stainless Steel
- Excellent Retrofit For Protective Linings
- Adaptable To A Wide Variety Of Applications

### PRODUCT COLORS:

- Black

### APPLICATIONS INCLUDE:

- Dock Bumpers
- Protective Linings
- Conveyor Parts
- Bottling Wheels
- Bushings And Bearings
- Machined Parts
- Wear Strips
- Many Others

GENERAL PROPERTIES	ASTM or UL Test	POLYSLICK 501 / 502 Typical Values
<b>PHYSICAL</b>		
Density, g/cm <sup>3</sup>	D792	0.934
Water Absorption, %	D570	-
<b>MECHANICAL</b>		
Tensile Strength at Yield, MPa (ksi)	D638	21 (3.1)
Tensile Strength at Break, MPa (ksi)	D638	48 (7)
Elongation at Break, %	D638	350
Young's Modulus, GPa (106 psi) @ 23°C (73°F)	D638	0.69 (0.1)
IZOD Impact Strength, kJ/m (ft-lb/in) notch	D256(a)	1.6 (30)
Hardness Shore D	D2240	62 - 66
Abrasion Resistance	-	100
Relative Solution Viscosity, dl/g	D4020	2.3 - 3.5
<b>THERMAL</b>		
Crystalline Melting Range, Powder, °C, (°F)	Microscope	142 (289)
Coefficient of Linear Expansion, 10 <sup>-4</sup> /K		
at 20 to 100°C (68 to 212°F)	D696	2
at -200 to -100°C (-330 to -150°F)	D696	0.5
<b>ELECTRICAL</b>		
Volume Resistivity	D257	>5 x 10 <sup>14</sup>
Dielectric Strength, KV/cm (V/mil)	D149	900 (2300)
Dielectric Constant	D150	2.3
Dissipation Factor, x 10 <sup>-4</sup>		
at 50 Hz	D150	1.9
at 1 Hz	D150	0.5
at 0.1 Hz	D150	2.5
Surface Resistivity For The Following Grade		
Polyslick-501, Anti-Static UHMW	D257	10 <sup>5</sup>
Polyslick-502, Conductive UHMW	D257	10 <sup>3</sup>

NOTE: The information contained here in is typical values intended for reference only. They should NOT be used as a basis for design specifications or quality control.

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